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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,446	11/10/2003	Raymond F. Horvath	UDL-004D2 (9424/6)	4873
21323	7590	02/28/2005	EXAMINER	
TESTA, HURWITZ & THIBEAULT, LLP HIGH STREET TOWER 125 HIGH STREET BOSTON, MA 02110			HABTE, KAHSAI	
			ART UNIT	PAPER NUMBER
			1624	

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/705,446

Applicant(s)

HORVATH ET AL.

Examiner

Kahsay Habte, Ph. D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1 and 76 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This restriction replaces the previous restriction requirement.
  - a. This restriction is required to clarify Groups IV, V, VII, and VIII. In previous restriction requirement, Groups IV and V are drawn to "Bicyclic pyrimidines fused to N- or O/S-containing ring " and Groups VII and VIII are drawn to "Bicyclic pyridines fused to N- or O/S-containing ring". According to the earlier restriction requirement, Groups IV, V, VII and VIII were drawn to tricyclic rings. To correct this mistake, the term "Bicyclic" is removed from Groups IV, V, VII and VIII.
  - b. This restriction is also required to request an election of a single disclosed species. Note that claim 1 is very broad and it involves a search of 13 core structures.

### ***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claim 1 (part), drawn to Fused Triazines (Formulae I, X, XII and XIV) where right (I, XIV) or left most ring (X, XII) forms a triazine, classified in class 544, subclasses 180, and 184.
  - II. Claim 1 (in part), drawn to Tricyclic Diazines (Formula I) where either both right most or left most form diazines, classified in class 544, subclasses 250, 251, and 346.
  - III. Claim 1 (in part), drawn to Tricyclic Monoazines (Formula I) where right most and left most ring forms a monoazine, classified in class 546, subclass 87.

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- IV. Claim 1 (in part), drawn to Pyrimidines fused to N-containing ring (bicyclic ring) (Formulae II-V, VII-IX, XI, XIII-XIV  $X=N$ ,  $W=N$  in III and XIII, and X, XII,  $X=C$ ) where the six membered ring contain two nitrogens and fused to nitrogen containing ring, classified in class 544, subclass various.
- V. Claim 1 (in part), drawn to Pyrimidines fused to O/S-containing ring (bicyclic) (Formulae III, VI, and XIV) when  $X=N$ , right ring contain O/S but not N, classified in class 544, subclasses 278, 180.
- VI. Claim 1 (in part), drawn to Quinazolines (Formula XIV) where pyrimidine ( $X=N$ ), is fused to benzene ( $I=J=K=L=C$ ), classified in class 544, subclass 293.
- VII. Claims 1 (in part) and 76 (in part), drawn to Pyridines fused to a 5-membered N-containing ring (bicyclic ring) (Formulae II, IV, V, VII-IX, XI) where  $X=C$ , classified in class 546, subclasses 113, 118, 119, and 120.
- VIII. Claim 1 (in part), drawn to Pyridines fused to O/S-containing ring (bicyclic ring) (Formulae III, VI, and XIV) where  $X=C$ , and (in XIV, right ring has O/S but not N), classified in class 546, subclass 114, 115, and 116.
- IX. Claim 1 (in part), drawn to Quinolines (Formula XIV),  $X=C$  where the right ring is carbocyclic, classified in class 546, subclasses 162 and 163.
- X. Claim 1 (in part), drawn to Naphthyridines (Formula XIV)  $X=C$ , where one of I, J, K, or L is Nitrogen and rest are carbon, classified in class 546, subclasses 122 and 123.

- XI. Claim 1 (in part), drawn to Fused Oxazines (Formula XIII and XIV) where right ring contains N and O, classified in class 544, subclasses 91 and 105.
- XII. Claim 1 (in part), drawn to Fused Thiazines (Formulae XIII and XIV), where the right ring contains a sulfur and nitrogen atom, classified in class 544, subclass 48.
- XIII. Claims 1 (in part) and 76 (in part), drawn to Unfused Pyrimidine (Formula XV) where one of **X** or **Y** is Nitrogen, classified in class 544, subclasses 317, 323, and 326.
- XIV. Claims 1 (in part) and 76 (in part), drawn to Unfused Pyridines (Formula XV) where **X=Y=Carbon**, classified in class 546, subclasses 297 and 307.

The inventions are distinct, each from the other because of the following reasons:

Groups I-XIV are directed to structurally dissimilar compounds such that the variable core created by the varying definitions of **X**, **W**, **I**, **J**, **K**, **L**, and **Y** in Formulae I – XV do not belong to the same recognized class of chemical compounds in the art, and references anticipating one invention, would not render obvious the others. For example, Group I (Fused Triazines) in bicyclic or tricyclic ring are different than Groups II-XV since they have a tricyclic or bicyclic ring that contain three nitrogen in either the right or left most ring that is not present in other Groups. Group II is different from Group I, since it contains tricyclic diazines. Group II (Tricyclic Diazines) are different from Groups I, and III-XIV, since it is a tricyclic ring and contains a diazine ring in the outer

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most ring that is not present in other Groups. Groups I-XIV are distinct one from the other, for example the Bicyclic Pyrimidines are different than Bicyclic Pyridines, are different than the thiazines, are different than Monocyclic Pyrimidines, are different than Quinolines, are different than Oxazines, are different than Naphthyridine, etc. Each group present a distinct category of heterocycles, vary in the number and nature of the heteroatoms, and number of rings and size of rings. Thus, separate searches in the literature as well as in the U.S. Patent Classification System would be required. Each group's compounds are made and used independently of each other and could support separate patents. The compounds differ significantly in chemical structures. One skilled in the art would not consider such diverse structure equivalents of each other.

Because these inventions are distinct for the reasons given above and have acquired separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

If applicants elect a group, a tentative election of species is also required.

A telephone call was made to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

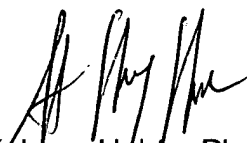
### ***Conclusion***

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kahsay Habte, Ph. D. whose telephone number is (571) 272-0667. The examiner can normally be reached on M-F (9.00AM- 5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mukund Shah can be reached on (571) 272-0674, if there is no reply within 24 hours, James Wilson (Acting SPE) can be reached at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kahsay Habte, Ph. D.  
Examiner  
Art Unit 1624

KH  
February 25, 2005